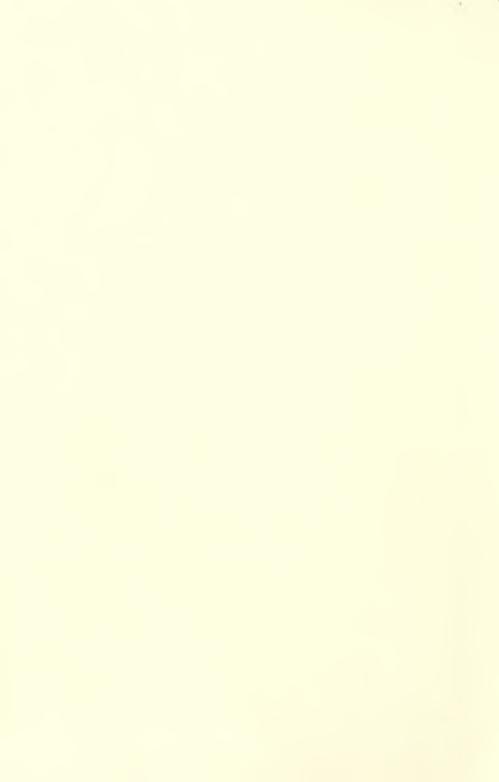
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Namekagon Nature

Trail









Weasel

Chequamegon-Nicolet National Forest

Forest



Service

United States Department of Agriculture

For More Information

Chequamegon-Nicolet National Forest

Forest Supervisor's Office

1170 4th Ave. S.

Park Falls, WI 54552

715-762-2461

715-762-5701 (TTY)

715-762-5179 FAX

Forest Supervisor's Office

68 S. Stevens Street

Rhinelander, WI 54501

715-362-1300

715-362-1383 (TTY)

715-362-1359 FAX

Great Divide Ranger District

Glidden Office

N22223 Hwy 13

P.O. Box 126

Glidden, WI 54527

715-264-2511 (voice and TTY)

715-264-3307 FAX

Hayward Office

10650 Nyman Ave.

P.O. Box 896

Hayward, WI 54843

715-634-4821 (voice and TTY)

715-634-3769

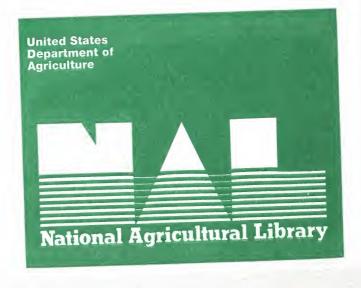
Northern Great Lakes Visitor Center

29270 County Hwy. G

Ashland, WI 54806

715-685-9983

715-685-2680 FAX



Welcome to the Namekagon Nature Trail

Viewing Tips

Be on the lookout for all species large and small, common and rare. The insects, amphibians, birds, and mammals all lead interesting and mysterious lives.

It is helpful to identify different habitat types and to know which species frequent them.

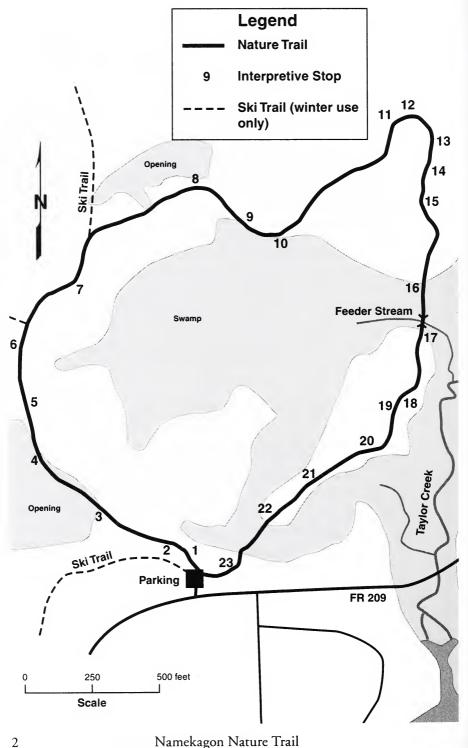
The best viewing times for most animals are at dawn or dusk. Look near water since wildlife have a natural affinity for water. The area between forests and open water or wetlands can be especially productive for finding wildlife.

Extend your senses as you enter the forest. Do the woods smell damp and earthy or crisp and dry? Listen for animal sounds. It may be easier to hear songbirds and frogs than to see them.

Look for evidence of animals. Aspen stumps chewed by beavers, large rectangular holes excavated in trees, scats, tracks, and dusting wallows all indicate the presence of critters.

Last but not least, watch from a distance. Don't disturb the wildlife that you are enjoying.





1 Tombstones of the Past

The old hemlock stump before you is slowly decomposing and releasing nutrients back into the ecosystem, giving a gift of life. Over time, mosses and lichens have carpeted the stump converting dead wood into nutrients. Crawling insects, invertebrates are living and feeding in the decomposing wood. These small organisms assist in recycling woody material into soil by making pathways in the wood that allows water and air to enter and accelerate decay.

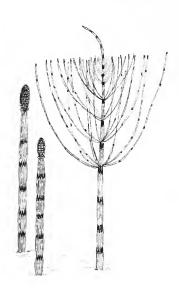
Yellow birch, hemlock, and northern white cedar prefer old stumps, logs or tip-up mounds (uprooted trees) to provide a rich humus environment at the start of life. The hemlock growing out of this stump is absorbing nutrients and moisture from the rotting wood. In time the young hemlock will grow to be a large tree in the forest canopy.



2 Ancient Plant

Horsetails are the most primitive members of the fern family. They are found in loose sandy soil and gravelly wet soils, usually near water. Horsetails are perennial plants with rhizomes and widely spreading roots. Both the stems and the branches of horsetails perform photosynthesis. In most other plants, only leaves and needles perform photosysthesis.

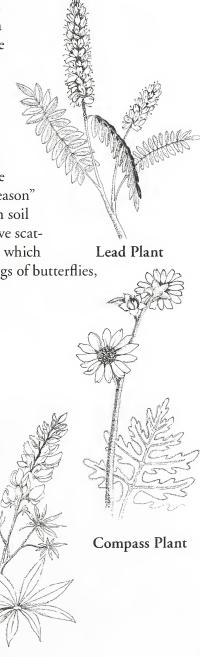
The simplified life cycle of a horsetail is as follows: At the top of each fertile stem, there is a cone called a strobilus. When the strobilus is mature, it releases spores into the environment. The spores live only a few days and germinate in a few hours, throwing off their coats and changing into prothalli, which are male or female. The male prothalli or antheridia produces sperm that seeks the female prothalli or archeponia to produce an egg and grows into a new horsetail plant.



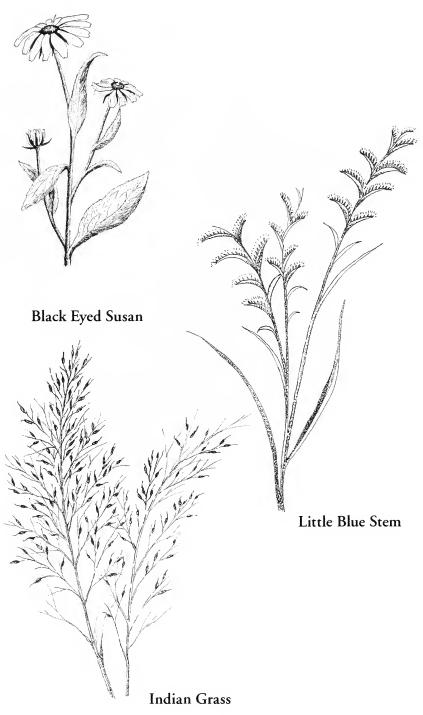
3 & 4 Prairie Meadow

Big Bluestem

This area was an opening that was enlarged by disking. In 1992 the area was planted with prairie seeds. Prairie plants require 2 to 5 years or more to become established before they develop a robust root system. Fire is an important part of prairie life. Spring burns set back non-prairie plants, remove accumulated plant litter, and expose soil to the warming rays of the sun. Most prairie plants are "warm season" plants and respond favorably to warm soil temperatures. Prairie fires tend to leave scattered unburned patches of vegetation which preserve over wintering pupae and eggs of butterflies, moths and other invertebrates.



Lupine

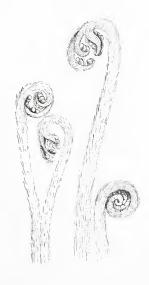


5 Bracken Ferns

Bracken ferns are among the most common ferns in the north country. They are indicators of poor and barren soils, growing where others would perish. They may be found in full sun, woods, old pastures, burned over areas, semi-shaded areas and thickets. Its creeping rootstock is black, is a half-inch in diameter, grows twenty feet or more in length and penetrates the soil deeply. All summer long, it continues to send up green, three parted fronds. Bracken is one of the few ferns for which man has found practical uses. Some of the historic uses are as follows: the uncurled fiddleheads are cooked like asparagus and eaten as greens, young rootstocks are used for food and brewing root beer, and the mature fronds are cut and dried and used for bedding for stock. In Europe the plant was used for thatching roofs. The young, uncurled, green sprouts are called fiddleheads because of their resemblance to the head of a fiddle. The bracken's fronds provide cover for ruffed grouse chicks, white-footed mice, and fawns of white-tailed deer. Deer seek the young green fiddleheads in the spring of the year.



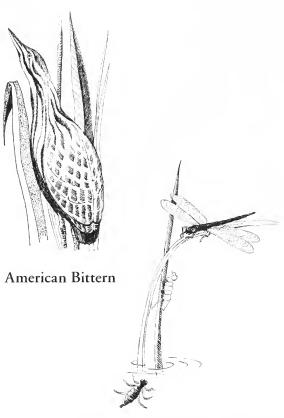




Fiddle Heads - Bracken Fern

6 Ephemeral Bog Pool

Ephemeral refers to reoccurring in the spring. Brown clumps of woolly bulrushes flourish to form dense hummocks along the ephemeral pool. The emergent, dark green leaf spears provide a resting spot for insect larva to metamorphose (transform) into their winged adult and aerial lifestyle. Upon close inspection, you may find a cast-off skin or exoskeleton of a dragonfly nymph still clinging to the bulrush. Bulrush seeds and tubers are important wildlife foods, especially for water fowl. Dense stands of bulrushes provide nesting cover for American bitterns, marsh wrens, and common yellow throat. Many marsh birds have brown streaked, cryptic plumage resembling marsh grasses to conceal and protect.



Dragonfly, Nymph, and Nymph Casing

7 Intermittent Stream

An intermittent stream runs in the spring and the fall during the wet season. Water is a magnet for wildlife from quenching their thirst to seeking food. A common snipe is a stocky short winged, short-legged bird with a long bill. They probe the moist soft ground near the stream in search of worms. In spring, a snipe may use the trail at dusk or dawn to perform winnowing, their elaborate mating flight. The snipe circles high into the air and then suddenly drop at high speeds to the ground. The sound you hear is the rush of air past the outer spread tail feathers which produces a low pulsing, whistling sound, "huhuhuhuhuhu," that carries through the still night air.

The intermediate wood fern has lacy evergreen leaves and thrives in the moist soil near the stream. Bunch berries grow low to the ground with one main stem, six leaves and a white flower in the center that matures into a clump of red berries. They provide forage for ruffed grouse, deer,

thrushes and vireos.

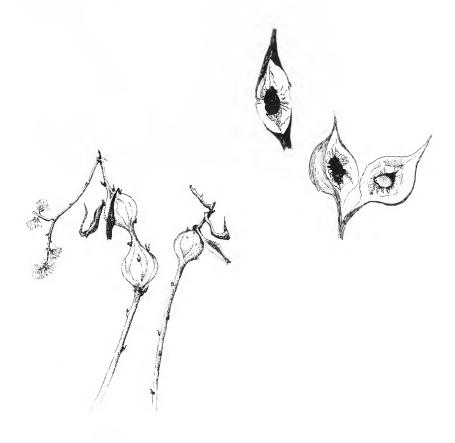
Intermediate Wood Fern

Woodcock and Snipe

Bunch Berry

8 Galls

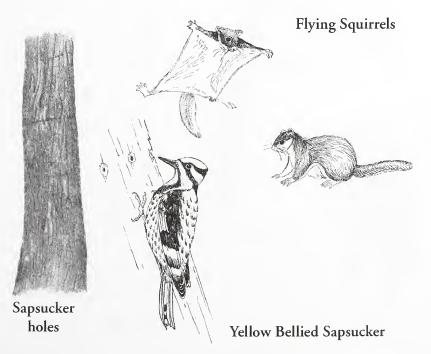
A few brown and weathered goldenrods, found along the trail have woody swellings called galls. The galls are caused by the larva of an insect that is living in the plant. A caterpillar causes the goldenrod's elliptical shaped gall. The caterpillar feeds inside the gall and inspires the plant to form the gall. Before pupating the caterpillar bores a small exit hole that it closes with silk fibers. The adult moth, which can't make an exit hole, can now escape. A ball gall is caused by a larva of a fly that burrows into the stem of the goldenrod. Plant hormones form a gall around the larva. The larva over winters and exits in the spring. A dense ball-like cluster of odd shaped leaves near the top is the sign of a small midge nesting in the goldenrod's leaf bud called a bunch gall.



9 Big Old Hemlock

The eastern hemlock provides a haven for woodland critters. The large seam on the tree trunk is an open door for flying squirrels, bats and birds that seek a cavity. The ground is littered with wood chips, needles and cone fragments from critters feeding and nesting in the tree. Flying squirrels are nocturnal and feed on the seeds in pinecones, acorns, insects, and bird eggs. Hemlocks are the favorite haunt of the black-throated green warbler. A song of "Zee, zee, zee, zoo and zee" repeated over and over makes them easy to identify. They have a habit of hovering in mid air to glean insects on the wing.

A series of holes or sap wells in the hemlock tree are the telltale signs of a yellow bellied sapsucker. The sapsucker lives up to its name by boring parallel holes in one or two favorite living trees allowing the sap to collect insects. Sapsuckers have a long, brush-footed tongue to collect the sap and insects at the sap wells. The sap wells are an entry point for fungus and insects to enter the tree, causing damage. Other food includes beetles, wasps, fruits of dogwood, and blackberries. Sapsuckers excavate cavities in snags or live trees with rotten heartwood.



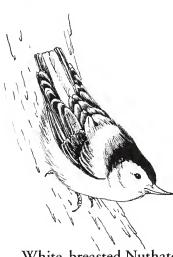
10 Winter Wren and Friends

In late winter through summer, the winter wren's beautiful song can be heard on the edge of a swampy boreal forest. The nest is well hidden in up-turned roots of fallen trees, under stumps, and mossy hummocks. The cavity is lined with moss, grasses, and rootlets with a small round entrance on the side. In winter the white-breasted nuthatch, winter wren, and brown creeper may roost together in a tree cavity. Winter wrens glean insects and spiders from the ground and shrubbery. The white-breasted nuthatch gleans insects from the bark of trees. The brown creeper normally feeds by ascending the tree trunk in a spiral or straight course.





Brown Creeper

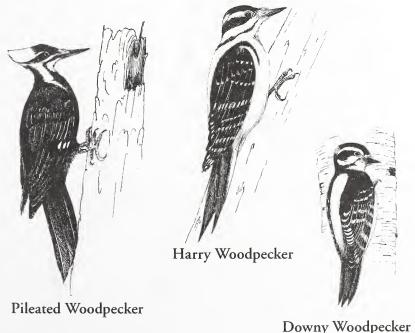


White-breasted Nuthatch

11 Old maple with cavity

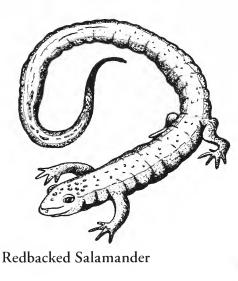
The forest has transitioned to an upland maple stand. Trees with cavities play an important role in the life of a healthy forest providing nesting cavities and shelter. Many birds and mammals feed on insects harmful to trees. Most insect eating birds have specific insects they prefer to eat. The pileated woodpecker excavates large areas in dead aspen, balsam, and jack pine in search of carpenter ants and woodboring beetles. White-breasted nuthatches feed on caterpillars, beetles, spiders, and ants during the warm seasons in deciduous forests. Downy woodpeckers glean wood boring larvae, ants, and caterpillars from trees. Hairy woodpeckers prefer to feed on dead and diseased trees in search of adult and larva beetles, ants, and caterpillars.

Sugar maple leaves are alkaline and full of magnesium, potassium, and calcium. The leaves decompose quickly, returning nutrients to the soil. They are one of the few trees that pump nutrients from low soil levels to its leaves. Most trees reabsorb the nutrients from their leaves before they fall. This may contribute to sugar maples living 400 years.



12 Basement Dwellers

Many animals make their home on the forest floor, which is crawling with more critters than we would like to think about. Amphibians and reptiles are key players in the terrestrial environment. They serve as predators, prey, nutrient recyclers, seed transporters, and more. The redbacked salamander is at home in the mixed coniferous-deciduous forest. They are found under logs, rocks, and in leaf litter. In the fall the male redback lays a jelly like mass and the female picks it up. She deposits the eggs in damp rotten logs or in soil under rocks. The female guards her 3 to 14 eggs and the young for up to three weeks. In winter redbacks bury themselves in a rock crevice or burrow down about 15 inches in decaying roots in the soil. They eat worms, sow bugs, centipedes, spiders, and ants. Small snakes, shrews, and the larger spotted salamander prey on redbacks.

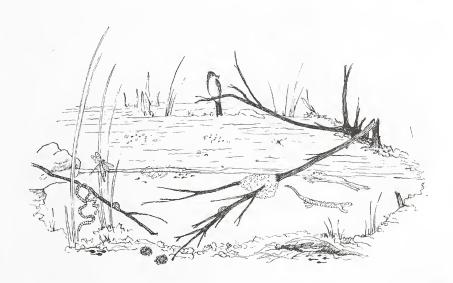




Spotted salamander

13 Pools of Life

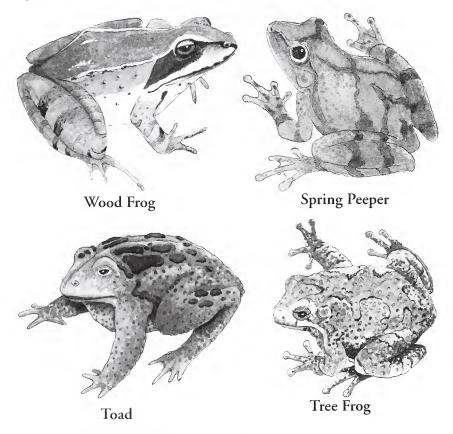
Vernal pools are jewels of biodiversity for all that creep and crawl. Hibernating salamanders and frogs seek the pools in search of a mate. Spotted salamanders lay gelatinous eggs in masses in the pool, which float to the surface. Algae will grow on the egg masses and transmit oxygen to the embryos to promote robust development. The female salamander remains with the eggs until they hatch into fully aquatic larvae, resembling small adults with prominent finned tails and external gill tufts. The young salamanders face many predators such as dragon fly nymphs and diving beetles that will devour creatures in their path.



14 The Lure of the Vernal Pool

The pools come to life with melting snow and spring rains. These pools are a haven for amphibians seeking a mate. As the temperatures rise in the spring, frogs stir from their burrow to mate in the vernal pools. Each frog and salamander's mating cycle is linked to water temperature. First, to seek the pool is the wood frog followed by the chorus frog, spring peeper, American toad, and eastern gray tree frog. The male wood frog announces his presence with a hoarse quacking call. The frogs' couple, then deposit eggs that hatch into tadpoles within a few weeks. The pools are only a few feet deep and are usually dry by August. Even though the pools are devoid of fish, the larva amphibians face hungry diving beetles and dragon fly nymphs.

By late summer the pools are dry enough to support terrestrial plant cover. Leaves and other woodland debris fill the depression with organic matter and fuel for next year's cycle.



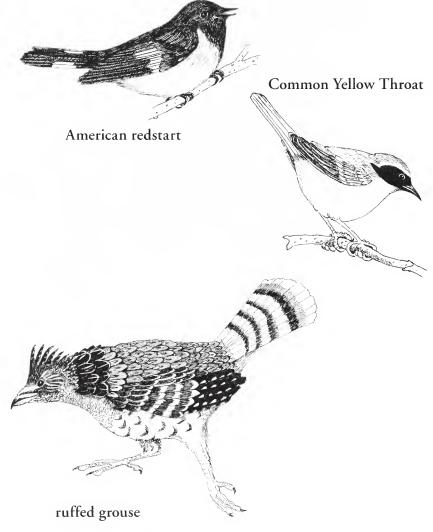
15 Animal Inns

Many animals require dead and decaying trees to provide shelter and a feeding area. Pileated woodpeckers prefer to excavate their own nest cavity in dead aspen trees greater than fifteen inches in diameter. Black capped chickadees prefer to excavate the soft decayed wood of a dead aspen or balsam tree for a nest site or use an existing nest cavity. The white-breasted nuthatch prefers natural cavities with rotten wood in trees at least twelve inches in diameter. Great crested flycatcher, barred owl, big brown bat, little brown bats, and flying squirrels use old woodpecker holes and cavities in trees for shelter. In the winter twenty or more flying squirrels may den together in a nest lined with moss, leaves, twigs, and bark.



16 Tributary of Taylor Creek

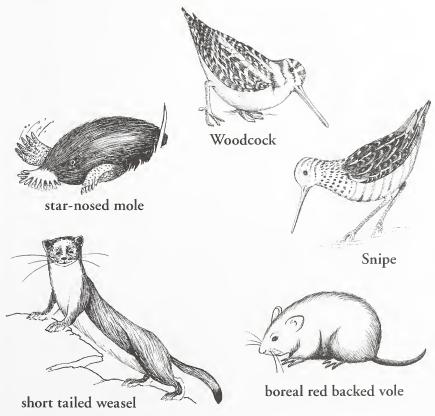
In spring, ruffed grouse feed on the young catkins of the yellow birch. The American redstart catches insects on the wing or gleans them from the branches and leaves on the yellow birch. As you walk through the tag alder wetland, watch and listen for the great crested flycatcher to cry "wheep, wheep, wheep" near the top of a tree. The common yellow throat calls "witchety, witchety, witchety" in the low brushy areas. The alder flycatcher calls "free-beer" from the top of a tree.



17 Across the Creek

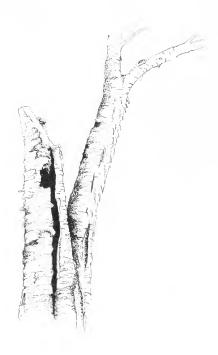
During spring, Taylor Creek bursts to life from snow melt and spring rains. Leaves, branches, and twigs fall from the forest into the stream. They decompose providing an energy source for the stream's food web. Aquatic insects live in the decaying vegetation. Mammals and birds are attracted to water to quench their thirst, to search for prey, and to seek a mate.

A short tailed weasel travels along the stream in search of starnosed moles and boreal red backed voles living in the thick alders and sedges along the stream. Woodcock and snipe feed along the stream, probing for worms and insects in the soft, rich soil. During the cool, quiet hours near sundown, the woodcock performs his courtship dance in small openings along the stream. The woodcock circles up to hundreds of feet high and then descends in a zigzag flight, repeatedly calling "peent" when landing.



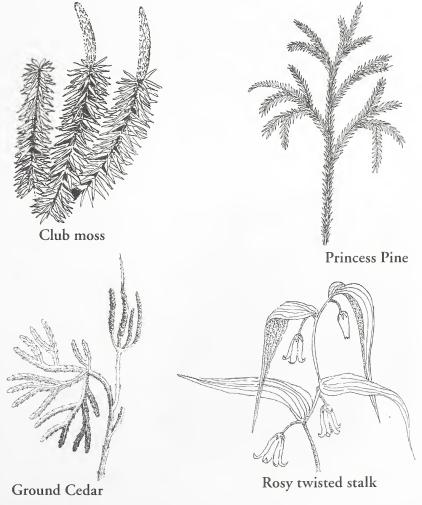
18 Yellow Birch hanging on to life

It isn't uncommon for yellow birches to live many years with a large portion of the tree dead. The seam provides roosting location for bats. Flying squirrels use the old dead portion for sleeping during the day. Hairy woodpeckers feed on wood boring insect lavae, thus requiring dead wood as a foraging substrate. The black and white warbler gleans insects, spiders, and daddy long legs from the trunk of the yellow birch. Brown creepers secure their nest behind a piece of bark. Some bird species excavate cavities in a living tree but most birds require dead wood to excavate a nesting cavity. Each cavitynesting critter has its own requirements for the type of cavity and roost site needed.



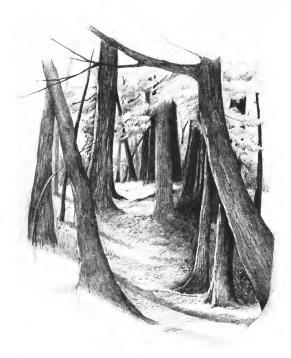
19 Club Moss, Princess Pine, Ground Cedar

Club moss isn't really a moss but a close relative of ferns called lycopodium. In evolution lycopodiums are between mosses and ferns. They date back to three hundred million years ago when they were as tall as trees today. Along with giant ferns and horsetail trees, lycopodiums formed the vast ferneries that are today's coal beds. Club mosses, princess pine, and ground cedar are small creeping evergreen plants forming dense mats, on the forest floor. They reproduce mainly by running along the ground and by spores. Today they are harvested for the natural beauty. Rosy twisted stalk and starflowers may be found growing with the lycopodiums.



20 Hemlock Old Growth Forest

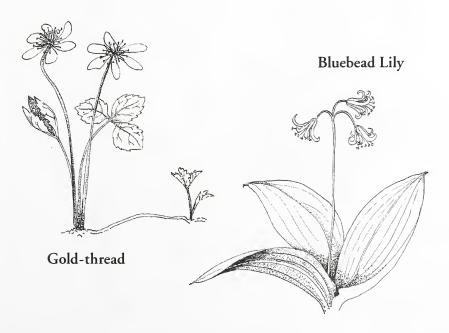
This small island in the swamp is an example of an old growth forest. The hemlock trees on this island are about 200 years old. The forest here has some clumps of hemlock that form a dense canopy that shades the forest floor from nearly all of the sun's rays. There are also gaps in the forest caused by the death of individual trees from insects, disease, or lightning strikes. Some gaps are also produced by trees that have been tipped over by the wind. In some soils, tip up mounds are formed when the roots of trees pull soil up when trees are blown down. The dead trees or snags and large tree trunks laying on the forest floor are important components of old growth forests. Mature forests have a thick litter layer with old stumps and logs appearing as mounds, displaying an irregular rolling topography. Litter is made up of partially decayed and undecayed leaves, needles, and small tree branches. Look around. While much of the forest here is very old, the gaps in the canopy allow young trees to become established and grow on the island.



21 Hemlock Island

Pure Hemlock stands are rare since they cast the densest shade of any forest tree due to its thick foliage and light filtering thick canopies that filter out light across the entire light spectrum. Seedlings do better away from the parent tree since the large trees suck up most of the water, and it is usually too shady for the young trees to become established. Why don't their roots suck up more water? The temperature near the top of the tree may be 90 degrees, but the water near the roots may be just above freezing due to the insulation power of peat. Roots can't absorb cold water very well, and when it's acidic, the problem is intensified. In a way, it's like living in a desert.

Few plants can exist in this dry environment without special adaptations. Many of the leaves are leathery and have a waxy coating, such as wintergreen, to prevent nutrient loss. Others such as Labrador-tea, have a dense wool coating on the undersides and downward curled leaves to prevent water vapor from escaping. Another adaptation is having leaf edges curl downward to keep water vapor from escaping. Plants like gold-thread and bluebead lily must be able to thrive in low levels of light.



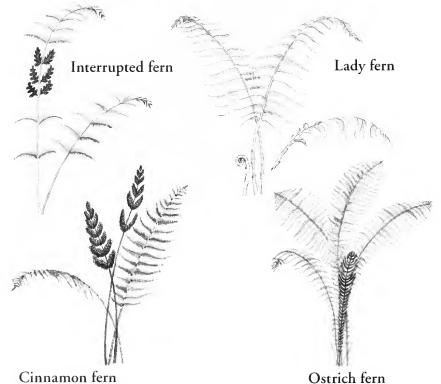
22 Bogwalk or a Fenwalk

This wetland has a mixture of bog and marsh species due to the movement of fresh water from Taylor Creek. The fresh water allows a greater variety of plants to grow in the wetland, which is more characteristic of a fen.

Swamp saxifrage is a perennial wetland herb that likes calciumrich water, another indicator of a fen type habitat.

The interrupted fern has an arching growth pattern with distinct interruptions in the center of a leaf, which are fertile leaflets containing spores. This large fern is persistent in almost any soil but prefers stony, dry soil or drier hummocks (mounds) in wetlands.

The cinnamon fern has an arching circular leaf clusters. The root stock is thickly matted, horsehair-like roots. In late spring golden cinnamon club-shaped, fertile leaves appear. They are wide spread in damp and water logged areas. Lady fern has black "hairs" on the base of the stem. Ostrich fern is shaped like an ostrich feather.

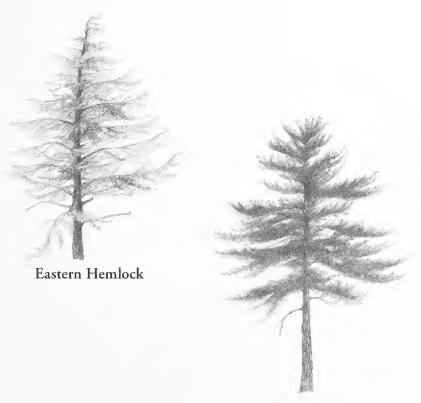


23 Tree Tops

Many trees can be identified from a distance by unique features. Distinctive characteristics of the eastern hemlock are the lacy appearance of the foliage and that the tip of the tree curves over to one side. The drooping tip makes it easy to identify at a distance. Hemlock needles are short and flat.

White pine have long, lateral branches in whorls, sweeping upward in graceful curves. From a distance, the branches appear similar to feather plumes. When you look closely at white pine foliage you can see that the needles are in bundles of five.

If you would like to keep this trail guide for a reference, please do so. If not, please return it to the trail guide box.



White Pine

Common and Scientific Names

Trees

Common Name	Scientific Name	Habitat
eastern hemlock	Tsuga canadensis	upland
eastern white pine	Pinus strobus	upland
northern white cedar	Thuja occidentalis	wetland
sugar maple	Acer saccharum	upland with rich soil
yellow birch	Betula papyrifera	upland with rich soil

Prairie Flora (Plants)

Common Name	Scientific Name	Family	Flowering Flower	
		·	Date	Color
Bergamont/Beebalm	Monarda fistulosa	Mint	July	Pink
Black-eyed Susan	Rudeckia hirta	Daisy	Jan-Oct	Yellow
Compass Plant	Silphium laciniatum	Aster	Jul-Sept	Yellow
Dotted Mint	Monarda punctata	Mint	May-Aug	Orange
Lance Leave Coreopsis	Coreopis lanceolata	Aster	May-Sept	Yellow
Lead Plant	Amorpha canescens	Pea	June-Sept	Violet
Lupine	Lupinus perennis	Pea	May-Aug	Violet
Showy Goldenrod	Solidago speciosa	Aster	Aug-Sept	Yellow
Stiff Goldenrod	Solidago rigida	Aster	July-Sept	Yellow
Grasses				

Big Blue Stem	Andropoon gerardi	Grass	July-Aug	Blue-violet
Indian Grass	Sorghastrum nutans	Grass	Sept-Oct	Golden
Woolly bulrushes	Scirpus cyperinus	Sedge	July-Oct	Brown

Ground Plants of Forests

Horsetail Bunch berries Partridgeberries Three-leaved	Equisetum species Cornus canadensis Mitchella repens	Horsetai Dogwoo Madder	l d May-June white
gold-thread	Coptis trifolia	Buttercup	
club mosses	Lycopodium species	late summer	
Princess Pine	Lycopodium obsurum		late summer
Ground Cedar	Lycopodium complanat	um	late summer
Rosy twisted stalk	Streptopus roseus	Lily	April-July
starflower	Trientalis borealis	Primrose	e May-Jun
Wintergreen	Gaultheria hispidula	Heath	May-June
Labrador-tea	Ledum groenlandicum	Heath	May-July
Bluebead Lily or Clintonia Swamp Saxifrage	Clintonia borealis Saxifraga pensylvanica	Lily	May-July May-June

Ferns

Common Name Bracken ferns Intermediate wood fern Interrupted fern Cinnamon Fern Lady fern

Scientific Name

Pteridium aquilinum Dryopteris intermedia Osmunda claytoniana Osmunda cinnamomea moist & shady places

Habitat

marshes

poor soil most upland habitats rich moist woodlands stony dry soil woodland edges Athyrium filix-femina moist semi-shaded woodlands Matteuccia struthiopteris swamps; low wet open woods

brushy swamps near water

Birds

Ostrich fern

Alder Flycatcher American bitterns American redstart barred owl Black capped chickadees Black-throated Green Warbler Brown Creeper common snipe common yellow throat Downy Woodpecker Golden Crowned Kinglet Great crested flycatcher Hairy Woodpecker marsh wren Morning Warblers Pileated Woodpecker White-breasted Nuthatch Winter Wren Woodcock

Empidonax alnorum Botaurus lentiginosus Setophaga ruticilla Strix varia Parus atricapillus

Dendroica virens Certhia americana Capella gallinago Geothlypis trichas Picoides pubescens Regulas satrapa Myiarchus crinitus Picoides villosus Cistohorus platensis Dryocopus pileatus Sitta carolinensis Troglodytes troglodytes Scolopax minor Sphyrapicus varius

deciduous woods, saplings woodlands mixed woods conifers mature woodlands marshes wet thickets, swamps woodlands conifers woodlands near water woodlands marshes - cattails, bulrushes Oporornis philadelphia brushy forest openings

mixed woodlands hardwoods near brushy wetlands brushy swamps, wet woods woodlands

Mammals

big brown bat boreal red backed voles Flying Squirrels little brown bats

short tailed weasel

star-nosed moles

Yellow Bellied Sapsucker

Eptesicus fuscus Clethrionomys gapperi Glaucomys sabrinus Myotis lucifugus

tree cavities, buildings damp woodlands coniferous mixed forest near water, tree cavities, buildings brushy or wooded areas near

Mustela erminea

wet ground near lakes or

Condylura cristata

streams

Amphibians

American toad chorus frog eastern gray tree frog Redbacked Salamander Spotted salamander spring peeper wood frog Bufo americanus
Pseudacris triseriata
Hyla versicolor
Plethodon cinerus
Ambystoma maculatum
Pseudaris cruifer
Rana sylvatica

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